

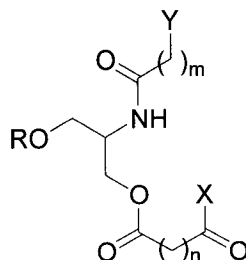
This listing of claims will replace all prior versions and listings of claims in the application.

IN THE CLAIMS:

Claims 1-25 are pending.

Please cancel claims 1 and 3 and amend claim 2 as follows.

1. (Cancelled)
2. (Currently Amended) A linker comprising a compound of the formula:

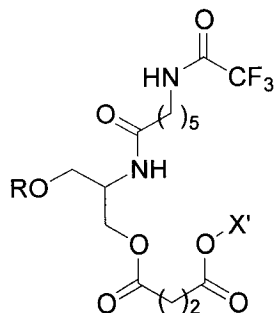


wherein R is ~~selected from the group consisting of hydrogen and an oxygen protecting group dimethoxytrityl;~~ m and n are integers independently selected from the group consisting of 1, 2, 3, 4, 5, 6, 7, and 8 m is 5; n is 2; X is an optionally substituted heteroatom a substituted heteroatom, where at least one of the substituents comprises a solid support; and Y is ~~an optionally substituted nitrogen or an optionally protected nitrogen~~ NHC(O)CF₃.

3. (Cancelled)
4. (Currently amended) The linker of claim 2 wherein ~~X~~ the substituted heteroatom is a substituted nitrogen, where at least one of the substituents comprises a solid support.
5. (Original) The linker of claim 4 wherein the solid support is an insoluble silica support.
6. (Original) The linker of claim 4 wherein the solid support is selected from the group consisting of controlled pore glass, long chain controlled pore glass, glass slides, and plastic slides.
7. (Withdrawn) The linker of claim 2 wherein Y is a substituted nitrogen, where at least one of the substituents comprises a solid support.
8. (Withdrawn) The linker of claim 7 wherein the solid support is a gel.

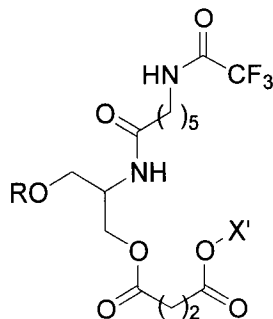
9. (Withdrawn) The linker of claim 2 wherein Y is a substituted nitrogen, where at least one of the substituents is selected from the group consisting of diagnostic agents, fluorescent agents, and radioactive agents.

10. (Original) An oligonucleotide linker comprising a compound of the formula:



wherein R is dimethoxytrityl; and X' is succinimid-N-yl.

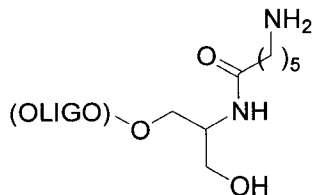
11. (Original) An oligonucleotide linker of the formula:



wherein R is dimethoxytrityl; and X' comprises an insoluble silica support.

12. (Currently Amended) The ~~oligonucleotide~~oligonucleotide linker of claim 11 wherein the insoluble silica support is controlled pore glass, long chain controlled pore glass, and glass slides.

13. (Withdrawn) An oligonucleotide conjugate of the formula:



wherein OLIGO is an oligonucleotide coupled at the 3'-end.

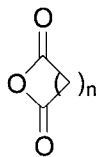
14. (Withdrawn) A method for preparing an aminopolyol linker, of claim 1 the method comprising the steps of:

- (a) protecting a first hydroxyl group of an aminopolyol by reacting the first hydroxyl group with a compound of the formula R-L, where R is an oxygen protecting group, and L is a leaving group;
- (b) acylating the amine of the hydroxyl protected aminopolyol; and
- (c) acylating a second hydroxyl group of the aminopolyol.

15. (Withdrawn) The method of claim 14 wherein the protecting step includes protecting a first hydroxyl group of serinol.

16. (Withdrawn) A method for preparing the compound of claim 1, the method comprising the steps of:

- (a) protecting a first hydroxyl group of serinol by reacting the first hydroxyl group with a compound of the formula R-L¹, where R is an oxygen protecting group, and L¹ is a leaving group;
- (b) acylating the amine of serinol by reacting the amine with a compound of the formula Y-(CH₂)_m-C(O)-L², where L² is a second leaving group; and
- (c) acylating a second hydroxyl group of serinol by:
 - (1) reacting the second hydroxyl group with a compound of the formula X-C(O)-(CH₂)_n-C(O)-L³, where L³ is a third leaving group; or
 - (2) reacting the second hydroxyl group with an anhydride of the formula:



and reacting the resulting product with a compound capable of forming an activated ester derivative.

17. (Withdrawn) The method of claim 16 wherein the protecting step includes reacting the first hydroxyl group with DMTr-Cl.

18. (Withdrawn) The method of claim 16 wherein the acylating step (b) includes acylating the amine with *N*-hydroxysuccinimid-*O*-yl 6-(*N*-trifluoroacetyl amino)caproate.

19. (Withdrawn) The method of claim 16 wherein the acylating step (c) includes acylating the second hydroxyl group with succinic anhydride and reacting the resulting product with *N*-hydroxysuccinimide and an amide coupling agent.

20. (Withdrawn) A method for preparing the compound of claim 3, the method comprising the steps of:

- (a) protecting a first hydroxyl group of serinol by reacting the first hydroxyl group with a compound of the formula $R-L^1$, where R is an oxygen protecting group, and L^1 is a leaving group;
- (b) acylating the amine of serinol by reacting the amine with a compound of the formula $Y-(CH_2)_m-C(O)-L^2$, where L^2 is a second leaving group;
- (c) acylating a second hydroxyl group of serinol by reacting the second hydroxyl group with a cyclic anhydride; and
- (d) reacting the product from step (c) with a compound capable of forming an activated ester derivative with the product of step (c).
- (e) reacting the product from step (d) with the solid support.

21. (Withdrawn) The method of claim 20 wherein the reacting step includes reacting the product from step (d) with controlled pore glass.

22. (Withdrawn) A method for fabricating a support with 3'-aminomodified oligonucleotides, the method comprising:

- (a) obtaining one or more aminomodifiers according to claim 5;
- (b) coupling one or more oligonucleotides to the one or more aminomodifiers to form one or more oligonucleotide-aminomodifier conjugates; and
- (c) coupling the one or more oligonucleotide-aminomodifier conjugates to the support.

23. (Withdrawn) The method of claim 22 wherein the support is selected from the group consisting of glass, matrix, gel pads, and plastic.

24. (Withdrawn) The method of claim 22 wherein the one or more oligonucleotides have a length in the range from about 6 to about 100 nucleotides.

25. (Withdrawn) The method of claim 24 wherein the oligonucleotides have a length in the range from about 10 to about 100 nucleotides.